

# OPAL SIP Call Manager — telecom-grade C++ services

**Domain:** Telecom / VoIP **Stack:** C++ · OPAL / PTLIB **Engagement:** Native systems delivery

C++ services built on OPAL/PTLIB for SIP endpoints, call control, and operator monitoring — reliability-first native code where fragile abstractions are unacceptable.

## CHALLENGE

### Real-time call control with operator visibility

Deliver SIP/telecom services with participant management, audio/video paths, and server-side logic — plus a web-facing operator UI for monitoring — without compromising call quality or stability.

## APPROACH

### Reliability-first C++ with governed releases

- OPAL/PTLIB integration for SIP endpoints and call control
- Senior-led architecture on concurrency and service boundaries
- Operator web UI for monitoring and control workflows
- Focus on call-quality and reliability over feature sprawl

## TECHNOLOGY

### Stack & delivery surface

C++ OPAL PTLIB SIP/VoIP Telecom Operator UI

## OUTCOMES

### What the programme proved

- Deep native telecom delivery — referenced on [sevendyne.com/projects/cpp/](https://sevendyne.com/projects/cpp/)
- Pattern for buyers needing SIP/telecom back-ends with governed squads
- Demonstrates senior C++ depth beyond generic web outsourcing